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10/563,626	09/11/2006	Motoichi Ohtsu	283987US2XPCT	1732
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
NGUYEN, SANG H				
ART UNIT		PAPER NUMBER		
2886				
NOTIFICATION DATE		DELIVERY MODE		
11/28/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/563,626

Applicant(s)

OHTSU ET AL.

Examiner

Sang Nguyen

Art Unit

2886

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date 01/06/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 01/06/06 has been entered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

Claims 1 and 13 are objected to because of the following informalities:

Claims 1-12 are apparatus claims and 13-23 are method claims; however, the claims do not clearly show any comprising of perform an apparatus claim and steps to perform a method claim. Therefore, Applicant should perform to rewrite or amend the language "method comprising step of:" should be used in the method claim and "the apparatus comprising of:" used in to the apparatus claims.

.Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Mononobe et al (U.S. Patent No. 6,236,783).

Regarding claims 1 and 13; Mononobe et al discloses a light detecting apparatus (figure 15), comprising: a broad range measurement mode (i.e., a light source [52 of figure 15]) exploiting the light propagated through a core (41) of said optical fiber probe (40 of figure 15) and a high resolution measurement mode (i.e., spectroscopy detector [56 of figure 15] for detecting reflecting light from sample [51 of figure 15]) exploiting near-field light seeping from said core (41 of figure 15 and col.1 lines 5-10 and col.15 line 35 to col.16 line 27) of said optical fiber probe (40 of figure 15). See figures 1-41

U.S. Patent May 22, 2001 Sheet 9 of 22 US 6,236,783 B1

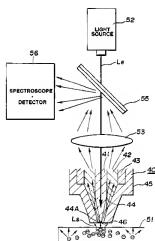


FIG. 15

U.S. Patent May 22, 2001 Sheet 9 of 22 US 6,236,783 B1

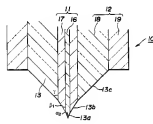


FIG. 9

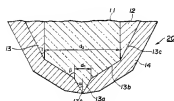


FIG. 10

It is noted that the recitation "a light detecting apparatus in which a distal end of an optical fiber probe faces a surface for measurement, a spot of light from said optical fiber probe is formed on said surface for measurement, and light from said surface for measurement is detected by said optical fiber probe" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Also, the recitation "a distal end of an optical fiber probe faces a surface for measurement, a spot of light from said optical fiber probe is formed on said surface for measurement, and light from said surface for measurement is detected by said optical fiber probe" that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2-11 and 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mononobe et al (U.S. Patent No. 6,236,783) in view of Itoh et al (U.S. Patent No. 7,274,012).

Regarding claims 2, 8, and 14; Mononobe et al discloses all of features of claimed invention except for switching is made between said broad range measurement mode and said high resolution measurement mode based on a distance between the distal end of said optical fiber probe and said surface for measurement. However, Itoh et al teaches that it is known in the art to provide switching is made between said broad range measurement mode and said high resolution measurement mode based on a distance between the distal end of said optical fiber probe and said surface for measurement (col.8 lines 40-59 and col.9 lines 3-9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine light detecting apparatus and method of Mononobe et al with switching is made between said broad range measurement mode and said high resolution measurement mode based on a distance between the distal end of said optical fiber probe and said surface

for measurement as taught by Itoh et al for the purpose of increasing the scanning speed in a measurement operation and measuring a large area with a reduced time.

Regarding claims 3 and 15; Mononobe et al discloses all of features of claimed invention except for switching is made to said broad range measurement mode when said distance exceeds a preset value and wherein switching is made to said high resolution measurement mode when said distance is not larger than said preset value. However, Itoh et al teaches that it is known in the art to provide a light wavelength converter (17 of figures 1 and 4) for switching is made to said broad range measurement mode when said distance exceeds a preset value and wherein switching is made to said high resolution measurement mode when said distance is not larger than said preset value (col.3 lines 66 to col.4 lines 9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine light detecting apparatus and method of Mononobe et al with switching is made to said broad range measurement mode when said distance exceeds a preset value and wherein switching is made to said high resolution measurement mode when said distance is not larger than said preset value as taught by Itoh et al for the purpose of increasing the scanning speed in a measurement operation and measuring a large area with a reduced time.

Regarding claims 4 and 16; Mononobe et al discloses switching is made between said broad range measurement mode and said high resolution measurement mode based on said distance correlated to the value of the diameter of a light radiating

aperture (figures 10 and 15) formed centrally of the distal end of a core (11 of figure 10) of said optical fiber probe (20 of figure 10).

Regarding claims 5 and 17; Mononobe et al discloses all of features of claimed invention except for further comprising distance changing means for changing the distance between said optical fiber probe and said surface for measurement in effecting the switching between said broad range measurement mode and said high resolution measurement mode. However, Itoh et al teaches that it is known in the art to provide further comprising distance changing means (i.e., controller [15 of figures 1 and 4]) for changing the distance between said optical fiber probe (13 of figure 1) and said surface (2a of figure 1) for measurement in effecting the switching between said broad range measurement mode and said high resolution measurement mode. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine light detecting apparatus and method of Mononobe et al with further comprising distance changing means for changing the distance between said optical fiber probe and said surface for measurement in effecting the switching between said broad range measurement mode and said high resolution measurement mode as taught by Itoh et al for the purpose of increasing the scanning speed in a measurement operation and measuring a large area with a reduced time.

Regarding claims 6 and 18; Mononobe et al discloses said light radiating aperture (46 of figure 15) is formed centrally of the distal end of said core (41 of figure 15).

Regarding claims 7 and 19; Mononobe et al discloses a light shielding coating layer (14 of figure 10) is formed at the distal end of said core (11 of figure 10).

Regarding claims 9-10 and 20-21; Mononobe et al discloses all of features of claimed invention except for further comprising a light source for radiating said propagated light and wavelength controlling means for controlling the wavelength of light radiated from said light source, wherein said wavelength controlling means switches the wavelength of light radiated from said light source between said broad range measurement mode and said high resolution measurement mode. However, Itoh et al teaches that it is known in the art to provide further comprising a light source (11 of figure 1A) for radiating said propagated light and wavelength controlling means (17 of figure 1) for controlling the wavelength of light radiated from said light source (11 of figure 1), wherein said wavelength controlling means (17 of figure 1) switches the wavelength of light radiated from said light source (11 of figure 1) between said broad range measurement mode and said high resolution measurement mode. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine light detecting apparatus and method of Mononobe et al with a light source for radiating said propagated light and wavelength controlling means for controlling the wavelength of light radiated from said light source, wherein said wavelength controlling means switches the wavelength of light radiated from said light source between said broad range measurement mode and said high resolution measurement mode as taught by Itoh et al for the purpose of increasing the scanning speed in a measurement operation and measuring a large area with a reduced time.

Regarding claims 11 and 22-23; Mononobe et al discloses said optical fiber probe (20 of figure 10) has a light shielding coating layer (14 of figure 10) in such a manner that a light radiating aperture (13A of figure 10) is formed centrally of the distal end of said core (11 of figure 10). Mononobe et al discloses all of features of claimed invention except for said wavelength controlling means controls the wavelength of light radiated from said light source to a wavelength determined based on the material of said light shielding coating layer. However, Itoh et al teaches that it is known in the art to provide said wavelength controlling means (17 of figure 1) controls the wavelength of light radiated from said light source (11 of figure 1) to a wavelength determined based on the material of said light shielding coating layer (33 of figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine light detecting apparatus and method of Mononobe et al with said wavelength controlling means controls the wavelength of light radiated from said light source to a wavelength determined based on the material of said light shielding coating layer as taught by Itoh et al for the purpose of increasing the scanning speed in a measurement operation and measuring a large area with a reduced time.

Claims 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mononobe et al and Itoh et al as applied to claims 9 and 21 above, and further in view of Kleinerman (U.S. Patent No. 5,363,463).

Regarding claims 12 and 24; Mononobe et al and Itoh et al discloses all of features of claimed invention except for further comprising light monitor means for

monitoring the propagated light radiated from said light source. Kleinerman teaches that it is known in the art to provide further comprising light monitor means (figures 10, 13-14 and 25) for monitoring the propagated light radiated from said light source (10 of figure 10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine light detecting apparatus and method of Mononobe et al with light monitor means for monitoring the propagated light radiated from said light source as taught by Kleinerman for the purpose of increasing the scanning speed in a measurement operation and measuring a large area with a reduced time.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakajima et al (2003/0085351 A1); Sato et al (6370306; Islam (5664036); Ohtsu et al (5928525).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Nguyen whose telephone number is (571) 272-2425. The examiner can normally be reached on 9:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on (571) 272-2800 ext. 86. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 22, 2008

/Sang Nguyen/
Primary Examiner, Art Unit 2886